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Student Loan Recipients: Who are They, What is Their Total Debt Level, and What do They Know About Loan Repayment

by
Alyce Holland
and
Margaret A. Healy

The article presents a study that provides information about student loan recipients at Iowa State University. Loan recipients are described, along with their total debt level and their loan repayment knowledge.

Recent scrutiny of educational debt levels of American college students has led to a call for greater responsibility on the part of postsecondary institutions that certify loans. Specifically, questions have been raised concerning student borrowers' knowledge about their student loans. As a result, the Higher Education Reauthorization Act of 1986 required institutions certifying loans to counsel Guaranteed Student Loan (GSL) and Supplemental Loan (SLS) borrowers prior to their departure from the institution. Beginning with periods of enrollment on or after July 1, 1987, institutions are responsible for conducting individual or group interviews to explain student indebtedness, average anticipated monthly repayments, repayment options, and debt management strategies (The Reauthorization of the Higher Education Act of 1965 [RHEA], 1986).

In compliance with this ruling, undergraduate student loan recipients at a large mid-western public university were required to attend group exit interviews prior to graduation. At the conclusion of these interviews a voluntary survey was administered to students attending each session. The major objectives of the survey were (a) to obtain information to help financial aid personnel in describing students who had received loans, (b) to identify students' overall knowledge of their total debt load and future repayment schedule, and (c) to determine students' ability to repay loans.

Background

Relatively few studies have focused on postsecondary students' knowledge of money management in general, or on their specific knowledge about educational loans and their repayment. One such study was conducted by Danes and Hira (1987) to determine the money management knowledge of students at a single large university. They concluded that students had low levels of knowledge about insurance, credit cards, and overall financial management. Students were described as knowing general facts about money management but lacking in knowledge about specifics.

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The authors recommended that colleges provide students with education concerning personal financial management.

While little is known about students' money management, research has indicated that financial aid appears to be providing access to higher education for lower-income students and also has been instrumental in increasing student persistence. Murdock (1987) performed a meta-analysis of empirical studies that investigated the relationship between student persistence and financial aid. The analysis showed that financial aid is one of many variables affecting retention of students.

Concern among financial aid personnel has recently focused on students' overall debt levels as related to their ability to repay student educational loans. Evangelauf (1987, January 7) summarized trends in Guaranteed Student Loan borrowing from 1970 to 1986 and concluded that very little decisive evidence exists concerning the impact of heavy indebtedness. Hansen (1987) further reported that the value of the average annual GSL and NDSL has actually declined when dollar amounts are adjusted for inflation over this same time span; however, the overall size of the program has greatly increased due to a nearly four-fold increase in the number of borrowers. This increase in borrowers, due to the Middle Income Assistance Act of 1978, indicates that a higher percentage of students borrow to finance their college education today as compared to 1970. However, much of the concern about students' overall debt level stems from the increase in the total amount that undergraduates may borrow and the increased loan eligibility for juniors and seniors that was authorized by the Higher Education Act of 1986. The effect of the increased debt level will continue to be an issue which cannot effectively be studied until the classes entering in 1985 and 1986 have completed their degrees.

Various studies have shown a general increase in the average total indebtedness of college students (Davis, 1986; Martin, 1986; Little, 1986). It should be noted that these studies were conducted before higher GSL borrowing limits were authorized in 1986. In considering how burdensome these higher debt levels will be to students during repayment, the annual incomes of graduates must also be considered. Only when the total amount of money required for debt repayment is compared to pretax income can the economic well-being of individuals in repayment be measured.

Research has also indicated that there are no gender differences in the awarding of financial aid (Brown & Heath, 1977; Martin, 1986). If, however, women do not earn at an equal rate with men, a greater percentage of their net earnings must be used to pay their educational debts. Therefore, "manageable debt limits" should be defined separately for males and females in order to more accurately draw meaningful conclusions.

This article presents the responses of students who completed the survey at the conclusion of their exit interviews. The purpose of the article is to analyze the results of the survey in terms of who is borrowing, how much they are borrowing, and what students know about their personal loan management. Emphasis is placed on students' debt knowledge and their perceived ability to repay student loans.

Methodology

Population

In order to comply with the RHEA, 1986, students at Iowa State University with GSLs must attend a group exit interview with the Student Financial Aid Office (SFAO). Students in the present study were the Fall, 1987 baccalaureate graduates of the university who had received GSLs while undergraduates. Of the 1,333 students receiving undergraduate degrees, 790 had borrowed through the GSL program, and 516 of these GSL recipients attended group interviews. (Those students not attending group interviews met individually with SFAO personnel.) There were

12 different interview sessions, with average attendance between 35 and 50.

The one hour group interviews consisted of a 15 minute presentation by a SFAO counselor, a 12 minute video cassette (Loan Sense, 1986) and 30 minutes for students' questions. At the conclusion of the interviews, students were given a comprehensive booklet about loan repayment procedures that had been prepared by the university. They were also requested to voluntarily complete a short survey in order to aid the university in learning more about student loan recipients. A total of 468 students (91%) of those in attendance completed the survey.

Instrumentation

A fourteen item self-report survey was developed for use at student loan recipient exit interviews. The survey was constructed so that it could be easily administered and scored. Demographic information included college of graduation, gender, race, GPA, and age. Students also were asked their plans following graduation; if they had a job (or planned to have a job), they were asked to report their anticipated annual income.

Questions that were specific to GSLs included when GSL repayment would begin, and how long the students thought they would be in repayment. In addition, students were asked to state their total debt from all available loan programs, and to estimate the total amount of their monthly loan repayment.

Results

Results of the study focused on three dimensions of the questionnaire administered to student GSL recipients. Demographic data of student loan recipients were compared to the profile of all baccalaureate graduates. Loan recipients' knowledge of their debt levels and repayment schedules was then investigated. Students' total loan levels were compared to their self-reported annual income. Specifically, the differing percentage of discretionary income that would be used by different groups to repay student loans was analyzed.

Demographic Data

Demographic studies indicated that borrowers were representative of the Fall semester, 1987 undergraduates who received degrees. Table 1 compares student loan recipients and the total graduating population by college, gender, and racial status. The largest difference by college was among graduates of the College of Engineering, where graduates accounted for 22.1% of the total graduating population, but were 25.0% of the loan recipient population. In contrast to the College of Engineering graduates, graduates of the College of Education were underrepresented in the loan recipient population. Whereas 9.7% of the total population graduated in education, graduates of the College of Education accounted for only 6.0% of the student loan recipients.

Minority students were overrepresented in the loan recipient population. Although the percentage of minority students in the total graduating population was 3.7%, minority students accounted for 7.2% of the students who had received student loans and completed the questionnaire.

The average self-reported grade point average (GPA) of student loan recipients was 2.72 on a 4.00 scale. The all-university undergraduate GPA from 1982 to 1987 (when these students typically would be undergraduates) was 2.60 for all undergraduates each fall semester and 2.67 each spring semester, suggesting that student loan recipients achieved academically on a level with their nonborrowing classmates.

Table 1

*Comparison of Total Graduating Population to Student Loan Recipients
by College, Gender, and Racial Status*

	Total Graduating Population		Student Loan Recipients	
	Number	% of Total Population	Number Responding	% of Loan Recipients
College	1333		468	
Agriculture	139	10.4	56	12.0
Business Administration	329	24.7	117	25.0
Design	110	8.3	40	8.5
Education	129	9.7	28	6.0
Engineering	295	22.1	117	25.0
Home Economics	103	7.7	36	7.7
Sciences & Humanities	228	17.1	74	15.9
Gender	1333		467	
Male	800	60.0	281	60.2
Female	533	40.0	186	39.8
Racial Status	1333		455	
Majority Students	1284	96.3	422	92.8
Minority Students ^a	49	3.7	33	7.2

^aMinority students = Black, Hispanic, Asian American, and Native American

Knowledge of Repayment Schedule

Even though the survey was administered at the conclusion of group exit interviews where repayment procedures were explained in detail, students lacked knowledge about the date when they would go into repayment status and also about the amount of their monthly loan repayments. In response to the question, "When will your GSL loan repayment begin?", 24% of the loan recipients answered "don't know" and only 49.4% answered correctly.

When asked, "What will your total monthly loan repayment be?", 25% were unable to answer. A higher percentage of females (27.9%) than males (23.1%) answered that they did not know their monthly loan repayment.

Total Debt Level

The average indebtedness from all loan programs of the 452 students self-reporting their total loan amount was \$7,761. Total loan amounts ranged from \$300 to \$20,000, with 6.4% reporting total indebtedness in excess of \$15,000. Bivariate product moment correlations were calculated to determine the relationship between total indebtedness and the following variables: GPA, age, and annual income. No analysis was statistically significant, indicating that students' need to borrow was not related to academic ability, age, or anticipated income.

College of graduation. When the percentage of student loan recipients was compared to the total graduating population in each college, a higher than anticipated percentage of loan recipients was found in the College of Engineering and a lower

percentage was found in the College of Education. A single classification analysis of variance procedure was conducted to determine if there was a significant difference in the total debt level of graduates of the seven undergraduate colleges. The analysis showed no significant differences $F(6,443) = 0.621, p = .71$. Thus, although certain colleges had a disproportionate percentage of student loan recipients, there were no statistically significant differences in the total debt level of students in the various colleges.

Racial status. Demographic studies indicated a difference in the proportion of minority students in the student loan recipient population as compared to the total graduating population. In order to clarify the relationship between financial need and racial group membership, independent *t*-tests were computed separately to compare (a) the difference between the mean of minority students' total debt level and that of majority students' total debt level, and (b) the difference between the mean of minority and majority students' estimated total monthly loan repayment. Neither analysis was statistically significant, as shown in Table 2. These findings indicated that although minority students were more likely to have financial need, the total amount borrowed by each student was not significantly different from the amount borrowed by majority students.

Table 2
Anticipated Annual Income, Total Debt, and Estimated Total Monthly Loan Payment by Racial Group

Variable	Racial Group	N	Mean	SD	t-Value	Two-Tailed Probability
Anticipated Annual Income	Majority	373	\$21,650	5504	0.68	0.495
	Minority ^a	33	21,562	3295		
Total Debt	Majority	405	7,675	4289	-0.72	0.470
	Minority ^a	37	8,312	4562		
Estimated Total Monthly Loan Repayment	Majority	316	112	79	0.38	0.701
	Minority ^a	30	106	56		

^aMinority = Black, Hispanic, Asian American, and Native American

Gender. An independent *t*-test was computed to compare the mean total debt level of male ($M = \$7,765$) and female ($M = \$7,731$) students. This comparison was also not significant, $t(447) = -0.16, p = .87$, showing no difference in male and female total debt level (See Table 3). Thus, the findings of this study suggest that total debt level is not influenced by academic ability, age, anticipated annual income, college of graduation, gender, or racial status.

In addition to reporting their total debt level, students were also asked to estimate the amount of their total monthly loan repayment. The 353 students who answered reported an average monthly loan repayment of \$111.75. There were 36 students (20 male and 16 female) who estimated their monthly loan repayment at more than \$200.

Anticipated Annual Income of Loan Recipients

Male students who had accepted a job or planned to accept a job reported an average annual income of \$21,445. Actual or anticipated incomes ranged from \$8,000 to \$50,000. An independent *t*-test was computed on the difference between the mean income of minority students and that of majority students. The result was not significant $t(404) = 0.68, p < .41$, indicating no difference in average income between majority ($M = \$21,650$) and minority ($M = \$21,562$) graduates.

Independent *t*-tests were also computed to compare the mean differences between male and female loan recipients on income and total monthly loan repayment. The results of these analyses are presented in Table 3.

Table 3

Anticipated Annual Income, Total Debt, and Estimated Total Monthly Loan Repayment by Gender

Variable	Gender	N	Mean	SD	t-Value	Two-Tailed Probability
Anticipated Annual Income	Male	260	\$21,445	6019	7.69	*0.000
	Female	152	18,724	4920		
Total Debt	Male	274	7,765	4360	-0.16	0.870
	Female	175	7,731	4158		
Estimated Monthly Loan Repayment	Male	215	112	88	0.20	0.841
	Female	134	111	57		

* $p < .001$

The differences between males and females on their total debt level and total monthly loan repayment amount were not significant. However, a significant difference at the .001 level was found between males and females on their self-reported annual income. These results indicate that although female students incur the same amount of debt as male students, their income while repaying their student loan is significantly less than male students. Thus, a higher percentage of female graduates' income is required to repay student loans.

Discussion

A persistent question among financial aid personnel is whether students borrow larger amounts when they plan to enter high-paying fields, or whether they enter high-paying fields because they have large debts to repay. Results of the statistical analysis in the present study showed graduates of the College of Engineering to have significantly higher actual or anticipated incomes than graduates of the other six colleges and yet engineering students did not have statistically significant higher total debt levels as compared to other graduates. However, a higher percentage than expected of the engineering students had borrowed through the GSL program. One possible explanation for this difference could be the longer time (five or more years) it often requires engineering students to complete a bachelor's degree. Students in

engineering may have needed financial aid in order to complete their additional years of education. Another possibility is that students anticipating higher incomes may have been more inclined to borrow than to work.

The findings of this study suggest that students borrow as a result of financial need, rather than considering anticipated income. Further evidence that financial need was a principal determinant of borrowing was provided by the lack of significant findings when total debt level was compared to various demographic factors such as GPA, age, gender, and racial group. This data indicated that while certain groups of students (minority and engineering graduates) may have a higher proportion of students borrowing to finance their higher education expenses, there was no relationship between any single variable and total debt level.

Knowledge of Repayment Schedule

Students were unknowledgeable about their personal loan repayment schedules. At this point in their educational careers students did not seem to be concerned about their financial status, especially as it involved debt management. This presents a challenge to the student financial aid staff as they attempt to educate students about financial planning and debt management. In the Danes and Hira (1987) study, females demonstrated a greater knowledge than males about overall financial management. However, the findings of the present study indicate that females were less knowledgeable than males about their total debt level, when repayment would begin, and the amount of their monthly loan repayment.

The results of both this study and that of the Danes and Hira (1987) study suggest that it is incumbent on colleges and universities to better educate students about financial management. Danes and Hira state that financial aid offices should take the lead in promoting workshops, seminars, and classes about money management. We concur with this suggestion, and would further recommend that all agencies working with students' financial affairs should provide educational materials for student loan recipients. As borrowing for education increases and the total debt level continues to rise, financial aid offices and financial institutions providing loans have a responsibility to better educate students about managing credit.

Total Debt Level

The average level of total indebtedness (\$7,761) was lower than anticipated, but was a substantial increase over the average indebtedness from all sources for undergraduates of four-year colleges and universities (\$6,685) reported by Hansen (1987). It is important to note that the current graduates did most of their borrowing under rules that allowed a maximum of \$2500 per year and provided access to the program for middle income families. Studies of future graduates may reveal increased levels of borrowing the longer the higher loan limits are in place. Also, since students from middle income families are eliminated from the population of borrowers, we may find a higher average loan and a narrower range of total loan debt.

How burdensome these debt levels will be during the repayment period is dependent upon several factors. The general state of the economy will determine the adjusted value of the dollar that students will be using for repayment. During inflationary periods, students will be repaying loans with devalued dollars. A recessionary period could force students to repay loans with dollars valued higher than when they acquired their debts.

A second important factor is the income level of borrowers during repayment. Horch (1984) estimated that acceptable debt repayments range from 3 to 15 percent of pretax income. Male students in the present study estimated their average total monthly loan repayment would be \$112, and reported an actual or anticipated average annual income of \$21,445. Thus, the total monthly loan repayment represented

6.8% of the students' estimated gross monthly income, which was well within the guidelines proposed by Horch. There was no relationship between students' reported annual income and either their total debt or total monthly loan repayment.

The data indicated several significant differences between male and female graduates, however. Although the average total indebtedness of males (\$7,765) and females (\$7,731) was almost identical, females reported actual or anticipated average incomes of \$18,724 compared to male reported average income of \$21,445. The \$111.00 per month estimated average total loan payment of females represented 7% of their gross monthly income, whereas the male estimated average loan payment of \$112.00 was 5.8% of their gross monthly income. This pay differential means that women have less discretionary net income because they must use a higher proportion of their income to repay student loan debts. These findings are in accord with Martin's (1986) comparison of male and female loan recipients who were already in loan repayment.

An additional male/female difference was found in the response to the question, "What are your plans following graduation?" More females (13.6%) than males (5.7%) planned to attend either graduate or professional school. Perhaps the realization that her bachelor's degree had less value than that of her male counterpart encouraged female graduates to seek more education in order to increase their potential earnings. For whatever reason that a higher percentage of females chose to remain in college, this additional education could mean acquiring additional loans.

The results of this study indicate that the total debt level permitted students who entered college in the early to mid-1980s was not sufficiently high to be burdensome to borrowers during repayment. However, with the higher total debt levels now possible (\$17,250) for undergraduates, it is important that the ability of students to repay their loans be carefully monitored, not as a single figure of total debt, but as a percentage of monthly pretax income. These findings also indicate that this percentage of income should be calculated separately for male and female students.

Limitations of Study

The present study was conducted at a single large public institution, thus the results may not be generalizable to colleges of differing size. Further research is needed at institutions of varying sizes and types.

Future Research

Studies need to be conducted on the impact of increased levels of indebtedness allowed under Reauthorization of the Higher Education Act of 1986. A critical social policy issue is the percentage of income that is used to repay loans. If there is a gender bias or race bias in starting salaries, equitable awarding of loans results in inequitable percentages of income being used to repay loans. Two issues need to be studied. First, should loan limits be determined, in part, by the average starting salary in different career fields? Second, should financial aid offices address the inequities created by apparent lower salaries for women and minorities?

Another issue that needs to be studied relates to the level of educational indebtedness and alumni giving. If students spend the first ten years after graduation repaying their loans, will they have any discretionary income available to make a contribution to their institution? Do students feel they "owe" the institution anything if they have been loan recipients? If they do not, they will be less likely to be institutional donors.

Conclusions

Students with GSLs who attended required group exit interviews were asked to voluntarily complete a survey to provide information about students who had

received loans while in college. The results were analyzed to describe loan recipients along with their total debt level and knowledge about loan repayment.

Undergraduate student loan recipients were similar to the total graduating population. There was an apparent lack of knowledge (or possibly a lack of interest) by loan recipients in their debt repayment schedules. The present total debt level of students receiving GSLs was at a level that would not be considered burdensome during repayment. However, as total debt levels increase in the next few years, this situation may change. The results of this study also suggest that students need additional counselling about financial management and that females may experience more difficulty than males in repaying student loans.

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